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Kool, A.; Mainhard, M. T.; Brekelmans, M.; van Beukelen, P.; Jaarsma, Alexandra

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Academic success and early career outcomes: Can honors alumni be distinguished from non-honors alumni?

A. Kool^a, M. T. Mainhard^a, A. D. C. Jaarsma^b, M. Brekelmans^a and P. van Beukelen^c

^aFaculty of Social and Behavioural Sciences, Utrecht University, Utrecht, The Netherlands; ^bCenter for Research and Innovation in Medical Education, University Medical Center Groningen, Groningen, The Netherlands;

^cFaculty of Veterinary Medicine, Utrecht University, Utrecht, The Netherlands

ABSTRACT

This study compared Dutch alumni who previously participated in an honors program ($n = 72$) to non-honors alumni who entered university as high-achieving high school students ($n = 72$) with regard to (1) final university grade point average (GPA) and (2) early career outcomes. Final grades were drawn from university files. Using an online questionnaire, participants were asked to rate themselves on work engagement and other characteristics in their current jobs. Results indicate that, compared to the non-honors control group, honors alumni had a higher study GPA at the end of their studies and higher work engagement after graduation, while job characteristics were found to be similar. Implications for educators and job recruiters are discussed.

KEYWORDS

Honors; high-achieving students; academic achievement; alumni; early career

Over the last decade, the number of honors programs offered at universities has increased in Europe and elsewhere (Long & Mullins, 2012). Honors programs can take various forms. For example, they can offer a broader vision of the educational material or a deeper study of the subject matter (Byrne, 1998). Furthermore, teacher-to-student ratios are usually higher (Fischer, 1996) and students in these programs are part of a community of highly motivated peers. Admission to honors programs is often based on achievement in high school or in university, combined with a letter of motivation or interview (Rinn & Plucker, 2004).

In the Netherlands, an important reason for the government's investment in honors education is the need for more highly educated employees who can handle complex, multi-disciplinary problems (Ministry of Education, Culture, & Science, 2011). Indeed, according to Hoekman, McCormick, and Gross (1999) honors programs offer an opportunity for motivated and high-achieving students to fully develop these talents and to prevent a decline in motivation due to insufficiently challenging curricula.

However, despite these ambitions, it is unclear whether any cognitive or non-cognitive differences between honors alumni and non-honors alumni can actually be found when students graduate from university and during their early careers. The current study was designed to examine possible differences between honors and non-honors alumni of a large

Dutch research university in terms of (1) final grade point average (GPA) and (2) early career outcomes (i.e. work engagement and perceived job resources). In order to assess this, a group of honors alumni was compared to a group of non-honors alumni who entered university with similar final high school grades.

Study GPA

Study GPA is a frequently used measure of achievement in the selection of applicants, not only for educational programs and graduate schools but also among job recruiters (Achterberg, 2005; Imose & Barber, 2015). For example, Thoms, McMasters, Roberts, and Dombkowski (1999) showed that résumés with high GPAs were significantly more often selected for job interviews than identical résumés with lower GPAs. For students, it is therefore important to maintain a high GPA, also while attending honors courses.

On the one hand, honors programs may have a positive impact on GPA, because these programs are designed to be more challenging for high-achieving, motivated students and offer advantages such as smaller classes or deeper exploration of the study material (Byrne, 1998). On the other hand, honors programs represent an additional workload beyond the regular program (Van Eijl, Wolfensberger, van Tilborg, & Pilot, 2004), which may in turn have a negative effect on academic achievement, thus resulting in a lower GPA. Findings from previous studies addressing differences in GPA between honors and non-honors students are varied. Cosgrove (2004) found that honors students had higher GPAs at the end of the study, considering three groups of students; honors students, students who started the honors program but did not complete it, and high-ability non-honors students identified based on SAT scores (i.e. a standardized test widely used for college admissions in the United States), and high school class ranks. In contrast, Astin (1993) found no differences between the GPA of honors students and non-honors students in his study among a nationwide sample of 25,000 students from the United States. Finally, Shushok (2006) reported that while honors students in the mid-Atlantic states had a higher GPA compared to equally qualified non-honors students after one year of study, after four years of study, the difference in GPA between honors and non-honors students had leveled out. Rinn (2007), however, found that honors students from a large university in the United States had higher self-reported GPAs compared with high-achieving non-honors students. Thus, although some studies report that honors students differ from non-honors students with respect to GPA, others do not find any such differences. Additionally, it is not clear whether possible differences in GPA persist through graduation. Finally, the majority of studies on this topic originate from the United States and it is not certain whether these results can be generalized to Europe or other educational contexts. Compared to American students, for example, Dutch students have less drive to excel, probably since the education system is less competitive (Scager et al., 2012). The present study investigates whether Dutch honors alumni enter the job market with a different final GPA than non-honors students.

Early career outcomes

When developing honors programs in higher education, an important aim of the Dutch Government was to deliver professionals who would add value to the job market and become future leaders in their field (Ministry of Education, Culture, & Science, 2011). However, little

is known about these more distant effects of honors programs. A first step in examining possible effects is to investigate whether honors alumni can actually be distinguished from non-honors alumni once graduated in terms of how they experience their jobs.

To our knowledge, no studies of differences between the work experiences of honors and non-honors alumni have been published. Rinn (2007) compared career aspirations of honors and high-achieving non-honors students and reported no differences between the two. Differences in career aspirations may nevertheless emerge once students graduated. Other studies, not involving honors alumni, have examined the relationship between academic success and later earnings. Vermeulen and Schmidt (2008), for example, showed that among alumni from different majors at a Dutch university, self-reported GPA had a positive relationship with earnings and job satisfaction in the initial phase of a graduate's working career. Additionally, Thomas (2000) noted that alumni with high grades during their studies were later more successful in terms of earnings. It remains unclear, however, whether different results are to be found for honors alumni.

In order to investigate whether work-related differences between honors and non-honors alumni exist once students have graduated, we used two well-studied concepts from the literature on occupational health and performance: *job resources* and *work engagement* (e.g. Schaufeli & Bakker, 2004). Generally, jobs differ in the amount of job resources provided, such as possibilities for personal development, autonomy, or task variety. More broadly defined, job resources are: "physical, psychological, social, or organizational aspects of the job that either/or (1) reduce job demands and the associated physiological and psychological costs; (2) are functional in achieving work goals; (3) stimulate personal growth, learning and development" (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001, p. 501). The type and quality of job resources are crucial as they play an important motivational role, both intrinsic by enhancing growth, learning, and development, and extrinsic by facilitating the achievement of work goals (Schaufeli & Bakker, 2004). Job resources can be assessed in any type of profession and may have a positive influence on work engagement (e.g. Hakanen, Bakker, & Schaufeli, 2006).

Work engagement is defined as "a positive, fulfilling, affective-motivational state of work-related wellbeing" (Bakker & Leiter, 2010, p. 1). Work engagement has been related to a number of positive outcomes, such as the experience of better health for the individual (Schaufeli & Bakker, 2004), higher organizational outcomes, and enhanced performance (Salanova, Agut, & Peiró, 2005). Additionally, engagement is important, as engaged workers are energetic, enthusiastically involved in their job (Bakker, Schaufeli, Leiter, & Taris, 2008), and are able to create a positive overall working climate (Bakker, van Emmerik, & Euwema, 2006). Engaged workers show more proactive behavior (Salanova & Schaufeli, 2008) and experience low burnout levels (González-Romá, Schaufeli, Bakker, & Lloret, 2006). Thus, work engagement is a much-desired state for both the individual and the organization.

In this study, we measure graduates' perceptions of job resources and work engagement to examine whether honors alumni enter different types of jobs and are more engaged in their work compared to their non-honors peers.

The current study

This study is designed to examine differences between honors and non-honors alumni with regards to (1) final GPA and (2) early career outcomes. In order to compare honors alumni

with a control group of non-honors alumni with similar potential for high-achievement when entering university, we matched honors alumni to non-honors alumni based on final high-school GPA. The research questions addressed are:

- (1) Do honors alumni differ from non-honors alumni in terms of final GPA at the end of their studies?
- (2) Do honors alumni experience similar or different job resources and work engagement during their early career compared to non-honors alumni?

Method

Participants

This study was conducted among alumni of a large university in the Netherlands who were high-achieving during high school ($N = 144$, 50% had attended an honors program, average response rate 63%). Participants graduated in pharmaceutical sciences ($N = 40$), veterinary sciences ($N = 62$), or human geography ($N = 42$). In the Netherlands, all pupils in high school at pre-university level take the same final exams for their school subjects, although subject combinations can vary somewhat between students. These final grades are highly predictive of academic success in university (de Koning et al., 2012). In order to get a comparable control group in this study, each honors alumnus/alumna was matched to a non-honors alumnus/alumna from the same study program using the average final high school grade.

Of the participants we had background information on, 71% were female, which is representative of the programs under consideration. Ages of the participants ranged between 26 and 36 years ($M = 29.9$ years, $SD = 2.3$) at the time of survey, and participants had graduated between 2 and 10 years ago ($M = 5.7$ years since graduation, $SD = 1.3$).

Study programs

At the university where this study was situated, most programs only recently (<5 years) started to offer honors programs. To examine possible differences between honors and non-honors alumni during their early careers, participants were selected from study programs with a sizeable annual population of honors alumni ($N \geq 20$) (i.e. pharmaceutical sciences, veterinary sciences, and human geography) and only alumni with a maximum of 10 years' work experience were invited to participate.

All three programs from which alumni were selected for this research offer an honors program for which students are selected based on a letter of motivation or interview and an above-average GPA. As elsewhere in the world, honors programs at this university may take various forms, which are comparable to those in the United States. Two models that are often used are (1) programs that offer honors assignments and activities in addition to the regular curriculum, and (2) full programs that are especially designed for honors students. Honors programs at the university under study, however, most frequently use a combination of the two models in which students follow part of the regular program, honors courses are offered in addition to the regular program, and other parts of the regular curriculum are substituted by honors activities. The pharmaceutical sciences and veterinary sciences honors programs were aimed at conducting research-focused enrichment programs, and applied

the first model by offering honors courses in addition to the regular program. Students who want to continue a career in science often applied for these programs as honors activities included designing and conducting scientific research. The honors program for human geography applied a combined model, with honors courses substituting parts of the regular program and other courses offered in addition to the regular program. This program aimed at developing a broader vision on academic subjects and stimulating deeper understanding. An important activity of this program was to work on interdisciplinary assignments to prepare students for a leading role in society (Van Eijl, Wolfensberger, Schreve-Brinkman, & Pilot, 2007).

Measures

GPA

With active informed consent of all participants, survey outcomes were matched with final university GPA and final high school GPA as archived in the university's files. In the Netherlands, grades range from 1 (*lowest*) to 10 (*highest*). In order to pass an exam, a score of at least 5.5 is required. Therefore, the final study GPA of students who successfully finished their university studies could theoretically range from 5.5 to 10. For the current sample, this GPA ranged from 6.4 to 8.9 ($M = 7.5$, $SD = .54$). The reliability of GPA scores has been questioned (Poropat, 2009). Given the important role of GPA in this study, intra-class correlations of course grades (which sum up to GPA scores) were calculated to investigate the reliability of the study GPA scores. Four course grades, which is equal to the number of tests usually completed during one semester, were sufficient to get a reliable GPA measure, $ICC1 = .37$, $ICC2 = .70$.

Job characteristics

The job characteristics addressed in the questionnaire can be divided into two groups: job background characteristics and job resources

Job background characteristics. Background characteristics were *number of work hours per week*, *net salary per month*, and *job sector*. For each participant, the weekly work hours were measured with an open question. Participants were asked to indicate their income in terms of five ranges of salary (0–1000, 1000–1500, 1500–2000, 2000–2500, 2500–3000, or >3000 Euros). Salary was controlled for weekly work hours. Participants chose the relevant job sector from a list: scientific research, education, government industry, business industry, paid employment in pharmaceutical/veterinary clinic (for pharmaceutical sciences and veterinary sciences only), and entrepreneur.

Job resources. The job resources considered in this study were *autonomy*, *task variety*, *personal development*, *pay satisfaction*, and *task significance*. These specific job resources were selected during a panel meeting with five recently graduated alumni (about 1 year earlier) from different study programs. Scales from existing, validated questionnaires were used to measure the selected job resources, using the original Likert scales. Autonomy, task variety, and personal development were measured with the Dutch questionnaire on perception and evaluation of work (VBBA; Van Veldhoven & Meijman, 1994). This questionnaire is a widely used instrument for assessing job characteristics and psychological well-being in

Table 1. Descriptives of study variables for honors and non-honors alumni.

Variable	Honors students (<i>n</i> = 72)		Non-honors students (<i>n</i> = 72)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
GPA (5.5–10)	7.79	.45	7.23	.48
Work engagement (1–6)	5.34	.82	5.10	.70
Weekly work hrs. (20–80)	41.74	9.59	40.54	9.84
Autonomy (1–5)	3.90	.72	3.65	.64
Task variety (1–5)	3.96	.57	3.83	.59
Pers. development (1–5)	4.25	.57	4.11	.62
Pay satisfaction (1–5)	3.27	1.12	3.10	1.03
Task significance (1–7)	5.64	.86	5.58	.85

the Netherlands (Van Veldhoven, Taris, de Jonge, & Broersen, 2005). Items were rated on a scale ranging from 1 (*never*) to 5 (*always*). Autonomy was measured with an 11-item scale (e.g. “Can you influence the planning of your activities?”; $\alpha = .91$). Task variety was assessed with six items (e.g. “Does your work require creativity?”; $\alpha = .83$). The personal development scale consisted of four items (e.g. “Does your job offer you the possibility for personal growth and development?”; $\alpha = .81$). Following Sweeney and McFarlin (2005), pay satisfaction was measured with three items ranging from 1 (*disagree*) to 5 (*agree*). An example item is “I am satisfied with my current pay” ($\alpha = .93$). Task significance was measured with a three-item scale ($\alpha = .77$) derived from the Job Diagnostic Survey (Hackman & Oldham, 1975). An example item is, “This job is one where many other people can be affected by how well the work gets done.” Task significance was measured on a seven-point Likert scale ranging from 1 (*very inaccurate*) to 7 (*very accurate*).

Work engagement

Work engagement was measured using the nine-item Dutch short version of the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003). Example items are, “At my work, I feel bursting with energy” and “I am enthusiastic about my job.” Items were scored on a scale ranging from 0 (*never*) to 6 (*always*). Cronbach’s Alpha for this scale was .90.

Results

Descriptives of the study variables are presented in Table 1.

Study GPA

A two-way ANOVA with major as the first factor and honors program participation as the second factor was used to compare the GPA of honors and non-honors alumni at the end of their studies, while controlling for the specific program of study. Final study GPA of honors alumni was higher than that of non-honors alumni (Table 2). On average, the difference in GPA between honors alumni and non-honors alumni was .6 scale points. The effect of this difference in study GPA between honors and non-honors alumni was large (small effect: $\eta^2 = .01$, medium effect: $\eta^2 = .06$, large effect: $\eta^2 = .14$; Cohen, 1988).

Table 2. Summary table of two-way ANOVA for effect of honors program and study major on GPA ($N = 144$).

Variable	df	F	p	Partial η^2
Honors program	1	52.45	<.01	.28
Study major	2	9.62	<.01	.12
Honors \times Study	2	1.86	.16	.03
Error	138			

Table 3. Distribution of participants ($N = 144$) over the job sectors.

		1.	2.	3.	Total
Veterinary sciences	Honors	11	15	5	31
	Non-honors	2	24	5	31
Pharm. sciences	Honors	8	3	9	20
	Non-honors	1	10	9	20
Human geography	Honors	3	7	11	21
	Non-honors	2	6	13	21

Note: Categorization of job sectors: 1. Scientific research 2. Clinic (veterinary sciences, pharm. sciences)/Business industry (human geography) 3. Other.

Early career outcomes

Again, a two-way ANOVA with major as the first factor and honors program participation as the second factor was used to examine differences between honors and non-honors alumni in terms of job background characteristics. The amount of perceived job resources was compared for honors and non-honors alumni with a MANOVA. The distribution of the participants over the categories of salary was compared using the Mann–Whitney U test, and the distribution of participants over the job sectors was compared for honors and non-honors using a chi-square test.

Job background characteristics

Participants indicated that work-related activities took on average 41.3 h per week ($SD = 9.7$). No differences were found in the number of weekly work hours between honors and non-honors alumni, $F(11,376) = .37$, $p = .54$. In addition, the distribution of salary across the categories was the same for honors and non-honors alumni, $U = 2350$, $p = .46$.

At the time of data collection, most alumni of pharmaceutical sciences and veterinary sciences were working in a pharmaceutical clinic (33%) or veterinary clinic (63%), respectively. For the chi-square test, we limited the amount of categories to three, scientific research, clinic (veterinary sciences and pharmaceutical sciences, or business industry (human geography), and other. There were differences between honors and non-honors alumni in the distribution of participants over the job sectors for alumni of pharmaceutical sciences $\chi^2(2) = 9.21$, $p < .05$, and for veterinary sciences $\chi^2(2) = 8.31$, $p < .05$. Based on odds-ratios, honors alumni were 12.7 times (pharmaceutical sciences) and 8.0 times (veterinary sciences) more likely to work in scientific research. For human geography, most participants were working in the business industry (31%). There were no differences between honors and non-honors alumni of the human geography program in terms of distribution over the job sectors, $\chi^2(2) = .44$, $p = .80$. See Table 3 for an overview of the distribution of participants across job sectors.

Table 4. Pearson correlations among dependent variables ($N = 144$).

	1.	2.	3.	4.	5.	6.	7.	8.
1. GPA	–							
2. Work engagement	.17*	–						
3. Weekly work hours	.15*	.25**	–					
4. Autonomy	.16*	.41**	.08	–				
5. Task variety	.16*	.55**	.17*	.45**	–			
6. Pers. Development	.09	.64**	.19*	.51**	.77**	–		
7. Pay satisfaction	.10	.25**	–.02	.44**	.18*	.29**	–	
8. Task significance	.11	.32**	–.14*	.19*	.28**	.41****	.13	–

* $p < .05$; ** $p < .01$.

Table 5. Multivariate and univariate analyses of variance of differences in job resources between honors alumni ($n = 72$) and non-honors alumni ($n = 72$).

	df	F	p
<i>Multivariate effect</i>			
Job resources	5134	1.26	.29
<i>Univariate tests</i>			
Autonomy (1–5)	1	6.13	.02
Task variety (1–5)	1	1.69	.20
Pers. development (1–5)	1	1.23	.27
Pay satisfaction (1–5)	1	1.05	.31
Task significance (1–7)	1	.08	.78

Job resources

The results showed a significant medium-to-strong correlation between work engagement and other aspects of the job (Table 4) (cf. Schaufeli & Bakker, 2004). After controlling for major, no significant differences were found between honors and non-honors alumni in terms of amount of perceived job resources (Table 5). Despite the insignificant multivariate results, the univariate results of the job resources were examined in order to reveal possible indications for further research into this relationship (Field, 2009). The results indicate that honors program participation might result in more perceived job autonomy. Task variety, personal development, pay satisfaction, and task significance were perceived as equal by honors and non-honors alumni.

Work engagement

An ANCOVA was conducted to test for differences in work engagement between honors and non-honors alumni with years since graduation as a covariate. Work engagement differed significantly between honors and non-honors alumni. Honors alumni perceived their work engagement as somewhat higher compared to non-honors alumni. The effect of this difference in work engagement between honors and non-honors alumni was small (Table 6).

Discussion

In this study, differences between honors and non-honors alumni were examined at two stages: when entering the job market and during early career. Results from this study

Table 6. Summary table ANCOVA for effect of honors program on work engagement while controlling for years of work experience ($N = 144$).

Variable	df	<i>F</i>	<i>p</i>	Partial η^2
Honors program	1	5.33	.02	.04
Work experience (covariate)	1	3.16	.08	.02
Error	138			

suggest that honors alumni attained a higher GPA at the end of their studies compared to non-honors alumni. Further, honors alumni did not differ from non-honors alumni on job background characteristics and job resources, such as salary or work hours. Work engagement was found to be slightly higher for honors alumni than for non-honors alumni.

Study GPA

Honors alumni had a higher GPA than non-honors alumni at the end of their course of study, and, consequently, honors alumni entered the job market with a higher GPA than their non-honors peers. The effect of this difference was large. In general, these results correspond to the findings of Cosgrove (2004) and Shushok (2006), who found that honors program participation was positively associated with academic achievement during the first year of study, and Rinn (2007), who found a positive association between honors enrollment and self-reported GPA later on during a student's academic career.

There are different possible explanations for the higher GPA of honors compared with non-honors alumni. There may be differences that can be attributed to enrollment in an honors program, such as lower student : teacher ratios, providing more opportunities for interaction between teacher and student. Supportive teachers positively affect students' learning (Kember, 2004). Additionally, teacher feedback offers opportunities for improvement of skills and increased learning (Hattie & Timperley, 2007). Another component of the learning environment is peer-to-peer interaction (Vermeulen & Schmidt, 2008). High-quality interactions with peers are considered important for learning outcomes (Astin, 1993). Students in an honors program are surrounded by highly motivated peers, probably increasing the quality of peer-to-peer interactions. This advantage may lead to better learning outcomes and might positively affect the GPA of students in an honors program.

Additionally, the difference in GPA between honors and non-honors students might also be influenced by the students' self-concept. Rinn (2007) found that the academic self-concept of honors students was higher compared with that of high-achieving non-honors students. This improved self-concept might, in turn, enhance learning outcomes (Marsh, Trautwein, Lüdtke, Köller, & Baumert, 2005). The self-concept may have changed as a result of honors program enrollment, or may have been different before students entered the program. For example, students who decide to apply for honors programs may be more motivated or have different personal characteristics compared to students who do not apply. For educators and students considering honors program participation, our results nevertheless may yield important information, as our outcomes suggest that honors enrollment is unlikely to lead to a decline in GPA, and a high final GPA may increase the chances of getting an interesting job (Thoms et al., 1999). Although GPA seems a frequently used selection tool in the job recruitment processes, it is important to consider that grades do not necessarily reflect skills valued in the job market. For example, job recruiters often seek innovative and creative

employees, but creativity is generally weakly associated with GPA (Chamorro-Premuzic, 2006; Miron, Erez, & Naveh, 2004). Therefore, insights into differences between honors and non-honors alumni on non-cognitive traits may yield important additional information.

Early career outcomes

Comparisons of job background characteristics and job resources of honors and non-honors alumni indicated that alumni could not be distinguished in terms of salary, number of weekly work hours, and other job resources. The similarity in salary between the two groups is especially remarkable, given the previously demonstrated positive relationship between college grades and salary (e.g. Rumberger & Thomas, 1993; Vermeulen & Schmidt, 2008). Since our results showed that, in general, honors alumni earn a higher GPA than non-honors alumni, it could be expected that this would be reflected in the size of the salaries they reported. Contrary to the current study, the previous two studies did not specifically focus on high-achieving or honors students. Possibly, these students are less concerned with high salaries when compared with other students (Trank, Rynes, & Bretz Jr., 2002) and might therefore make different career decisions when entering the job market (i.e. they may prioritize other factors than salary when choosing a job). In addition, perhaps no significant results in terms of salary and weekly work hours were found because all participants in this study were at the relative upper end of both scales. It should be noted that participants in the current study entered the job market before the start of the economic crisis in 2008. Now, with higher unemployment rates all over Europe (CEDEFOP, 2013), it may be that differences between honors and non-honors alumni have become more evident. With more applicants for available jobs, it may become increasingly important to differentiate oneself from other applicants. An honors certificate may offer an advantage in the job market, but only when job recruiters recognize the potential value of attending an honors program. In the Netherlands, university honors programs are still in their infancy, so the concept and potential benefits of an honors program may still be unclear. Studies on the differences between honors and non-honors alumni provide additional knowledge on this topic.

The specific focus of the honors programs was related to the distribution of graduates over different job sectors. Honors alumni of pharmaceutical sciences and veterinary sciences, both focusing on the development of scientific research skills, worked more often in scientific research compared with non-honors alumni. This was not the case for alumni of the human geography honors program, which focused on developing a more interdisciplinary set of skills. Students who apply for the research-oriented honors programs may either already have an interest in conducting research and/or may strengthen such an interest later on. Given the large difference between the honors and non-honors alumni in terms of the number of participants that worked in the research sector, it is fair to conclude that attending these honors programs do at least further encourage students to pursue a career in scientific research.

Unlike job resources, work engagement was somewhat higher for honors compared to non-honors alumni. As differences in job resources could not account for this, other factors seem relevant. For example, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) showed that self-efficacy, organizational-based self-esteem, and optimism were positively related to work engagement in highly educated employees (cf. Bakker, Gierveld, & Van Rijswijk, 2006). Similarly, Salmela-Aro and Nurmi (2007) reported that self-esteem during

university was positively related to work engagement and job satisfaction 10 years later. It is possible that differences in such characteristics already existed before the start of the honors program. Due to the retrospective design of our study, it was not possible to gather data on pre-enrollment characteristics. It is, of course, possible that students who attend an honors program develop differently on such characteristics (Rinn, 2007), which may affect their work engagement later on.

Results of this study provide insights into how honors alumni differ from non-honors alumni. Future research should focus on the causes of these differences.

Limitations and further research

Although this study provides insights into the differences between honors and non-honors alumni, there are a few limitations that need to be addressed. As mentioned in the discussion, no pre-enrollment characteristics of the participants were collected. It is possible that students who decided to apply for an honors program already differed from students who decided not to apply or enroll. Moreover, our sample only included honors alumni who had successfully finished the program. Students who dropped out of the program were not captured in the honors sample, but may also differ from the honors alumni in this sample, for example, their motivation or level of perseverance. Future studies including longitudinal designs that capture trajectories of individual students, including pre-enrollment characteristics, are therefore highly recommended.

Like many similar studies, this study uses self-reports. A possible problem with this method is that self-reports may result in a certain bias, for example, students may respond in a socially desirable (Holden, 2007) or self-serving way. We tried to diminish this by guaranteeing the participants that questionnaires would only be used for research purposes and that results would only be presented anonymously. Nevertheless, we encourage future studies to use additional methods of measuring early career outcomes.

Further, honors programs are diverse, and this study involved three programs from only one university. Although the models for honors programs used in the Netherlands are comparable to, for example, those in the United States (Scager et al., 2012), generalizing the results to other types of honors programs may be problematic. Also, the specific focus of the honors programs (e.g. research oriented vs. a broader focus) may influence early career outcomes. Unfortunately, for the present study a comparison of the results of the three programs lacked sufficient power. We emphasize that more research involving different types of honors programs is needed before general conclusions can be made.

Conclusion

The results of this research indicate that honors alumni can be distinguished from non-honors alumni in terms of final GPA and work engagement. Job characteristics seem to be fairly equal for honors and non-honors alumni. This indicates that even though attending an honors program requires an extra time investment, it seems that honors program enrollment does not, at least, negatively affect GPA. For job recruiters, findings of this study show the potential benefits of hiring an honors graduate. Outcomes suggest that not only a high GPA but also holding an honors degree can be an important advantage for job applicants.

Disclosure statement

No potential conflict of interest was reported by the authors.

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